

REMARKS

Claims 1-16 are now pending in this application. Claims 1-11 are rejected. Claims 1, 5, 10, and 11 are objected to. New claims 12-16 are added. Claims 1 and 5 are amended herein to place them in better form. Claims 10 and 11 are amended herein to place them in better form and to make claim 10 independent and claim 11 dependent from claim 10. No change in scope is being done.

Claims 1 and 5 have been objected to for informalities and have been corrected, as appropriate.

Claim 1 has been rejected under 35 U.S.C. § 112, first paragraph, as not enabled. The Office Action states on pages 3-4 that the specification is enabling for the use of nitrogen-containing or carbon-containing reactive gas components, but that the specification is not enabling for the use of any two elements as the reactive gas components.

The citation in claim 1 of reactive gas components is for components which are reactive in an arc reactor. One of ordinary skill in the art would be able to determine, without undue experimentation, whether a particular component is reactive or not and therefore the enablement standard is met by claim 1. Moreover, the enablement standard does not require an exhaustive list of the various reactive components that are usable in the present invention. The CCPA has made clear that enablement does not require the disclosure of every species that falls within the scope of a claim, even in unpredictable art. *See In re Angstadt and Griffin*, 190

USPQ 214, 218 (CCPA 1976). Additionally, the courts have stated that "[a]s a matter of Patent Office practice, then, a specification disclosure which contains a teaching of the manner and process of making and using the invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented *must* be taken as in compliance with the enabling requirement of the first paragraph of § 112 *unless* there is reason to doubt the objective truth of the statements contained therein which must be relied on for enabling support." *See In re Marzocchi and Horton*, 169 USPQ 367, (CCPA 1971). Applicants explain how to make the invention and provide examples. This is sufficient to satisfy the enablement requirement. Furthermore, as stated above, one of ordinary skill in the art can determine, without undue experimentation, whether a particular component would be a reactive component. Accordingly, it is Applicants' position that claim 1 is enabled and respectfully request notice to this effect.

Claims 1-8 have been rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 6,303,760 (Dorn et al.).

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *See Verdegaal Brothers Inc. v. Union Oil Company of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Claim 1 recites, inter alia, the use of a reactive gas component. The Office Action states that the nitrogen disclosed in Dorn et al. is the reactive gas component. However, the Office Action has not

demonstrated that the nitrogen disclosed is a reactive component. In fact, it is well-known that nitrogen is an inert gas. Accordingly, it is Applicants' position that reliance on Dorn et al. to reject claim 1 is inappropriate. Furthermore, the yield of fullerenes in the present invention is much higher than in the invention of Dorn et al., as disclosed in the third full paragraph of page 1 of the specification and eight full paragraph of page 2 of the specification, which demonstrates the novelty of the present invention.

Claim 5 recites that the reactive gas component includes ammonia or methane or other hydrocarbons. There is no such disclosure in Dorn et al. The Office Action states that Dorn et al. teaches that the source of nitrogen in the process is preferably "a nitrogen containing gas" and that anticipation is present because "methane is a nitrogen containing gas." Applicants assume that the Office Action meant to state ammonia instead of methane since ammonia has a nitrogen atom while methane does not. There is no disclosure of ammonia being added to the invention of Dorn et al. and the statement that a nitrogen containing gas is added is not a substitute for this disclosure. As stated above, anticipation requires that every element be disclosed and ammonia is not disclosed in Dorn et al.

Claims 2-8 are patentable at least for the reason that they depend from a patentable base claim. *See In re Royka and Martin*, 180 USPQ 580, 583 (CCPA 1974).

Claim 9 has been rejected under 35 U.S.C. § 103(a) as obvious over Dorn et al.

Claim 9 is patentable at least for the reason that it depends from a patentable base claim. *See In re Fine*, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988).

Claims 10 and 11 have been objected to as dependent from a rejected claim but deemed allowable. Claim 10 has been made independent to secure its allowance. Claim 11 has been made dependent from claim 10. It is respectfully requested that claims 10 and 11 be allowed.

Claims 1, 5, and 10-11 have been amended. New claims 12-16 have been added. Support for the claim amendments and for the new claims can be found in, for example, the claims as filed. Claims 12-16 are patentable at least for the same reasons as claim 1.

No fee is believed due. If there is any fee due the USPTO is hereby authorized to charge such fee to Deposit Account No. 10-1250.

In light of the foregoing, the application is now believed to be in proper form for allowance of all claims and notice to that effect is earnestly solicited.

Respectfully submitted,
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